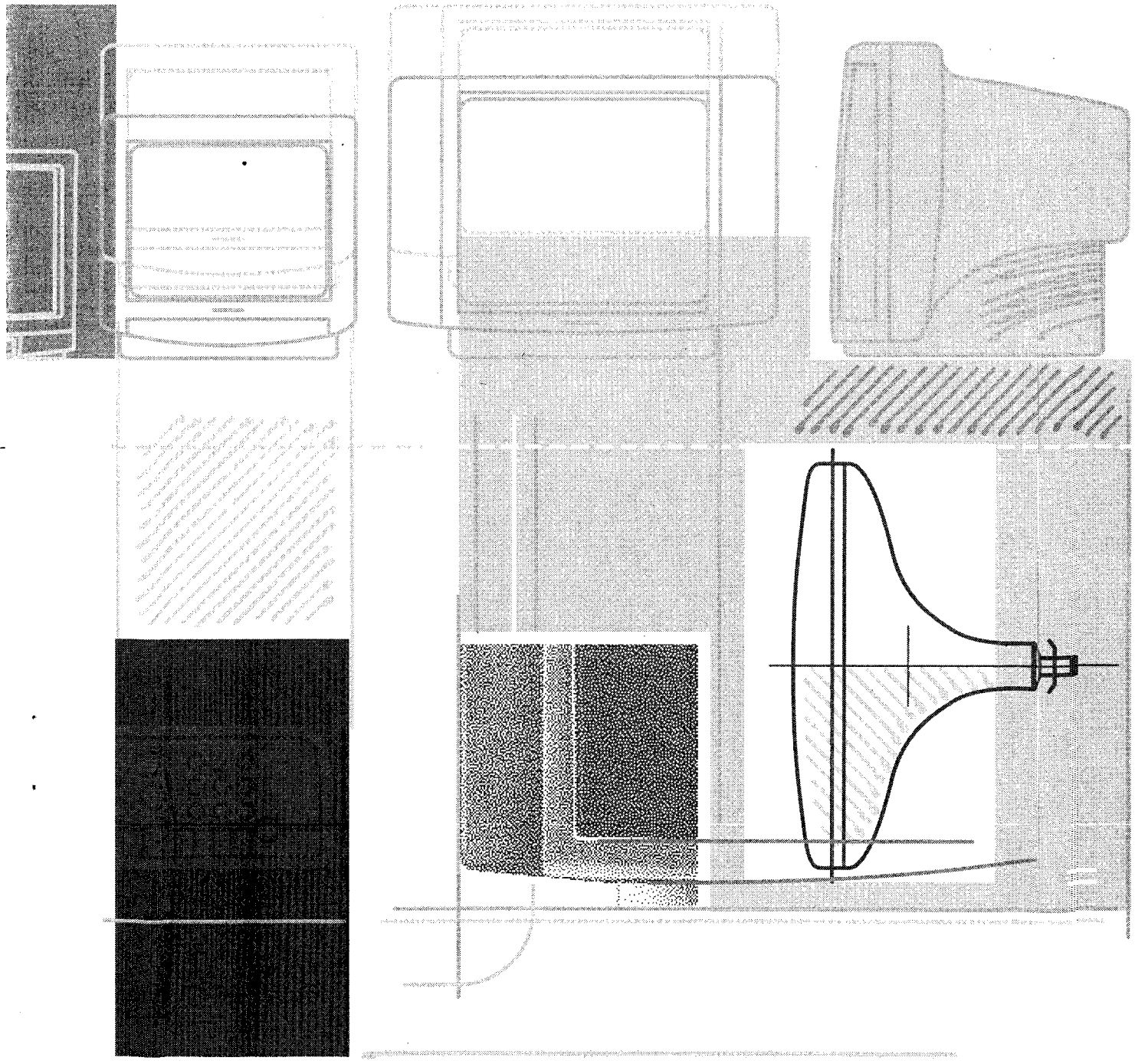
GRUNDIG

COLOR TELEVISION
ST 82-774 TOP/EURO



Buttons and Connections on the Unit

Unit Front

① I○ = Mains switch
so that channel position 1 is automatically selected when the television is switched on

② – ◢ + = Volume adjustment buttons

③ – = Stand by, display on

④ ∩ = Headphones socket, 3.5 mm ∅.

⑤ – P + = Channel position selection buttons

⑥ Display (display field)
depending on mode, for example:

P 3	= Channel 3 is on
C 59	= Channel 59 entered
S 18	= Special channel 18 entered
1	= Two-sound channel broadcast, sound channel 1 on,
2	Two-channel broadcast; sound channel 2 on
STEREO	= Stereo broadcast
A NICAM	= Digital two-channel broadcast, sound channel A on
NICAM B	= Digital two-channel broadcast, sound channel B on
AV1	= Video mode via Euro AV socket ⑭
AV2	= Video mode via Euro AV socket ⑬
AV3	= Video mode via Euro AV socket ⑫
AV4	= Hi 8 video recorder mode via FBAS socket ⑪
AV5	= S-VHS video recorder mode via socket ⑩

Unit Rear

⑦ Cinch-sockets = Connections for audio (sound) output

⑧ Y = Aeiral socket 75 Ω, coaxial, DIN 45325 IEC 169-2

⑨ Cinch-sockets = Connection for audio (sound) input for FBAS and S-VHS
R = Input, right channel
L = Input, left channel

⑩ S-VIDEO socket = Connection (picture) for S-Video or S-camcorder

⑪ Cinch-FBAS-socket = Connection (picture) for units with Cinch FBAS output (for ex., camcorder, computer)

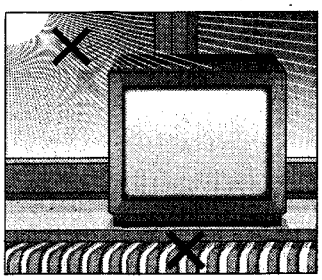
⑫ EURO-AV socket (blue) = normed connection for video units

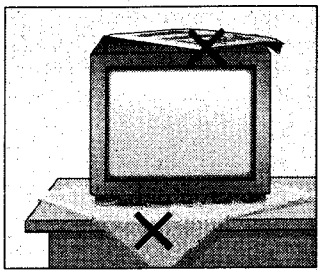
⑬ EURO-AV socet (orange) = normed connection for video units

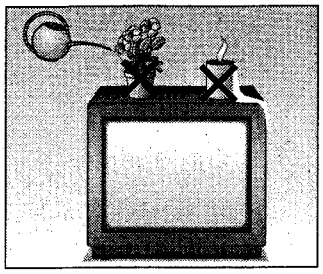
⑭ EURO-AV socket (black) = Universal connection, DIN EN 50049 for ex., video and RGB connection possible

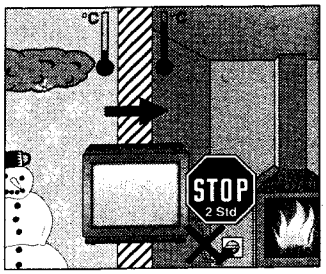
GB DK S SF

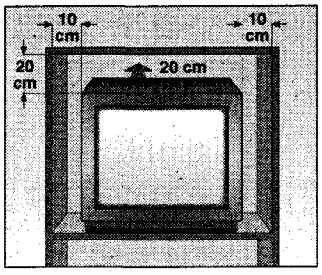
Notes on Safety and Setting Up

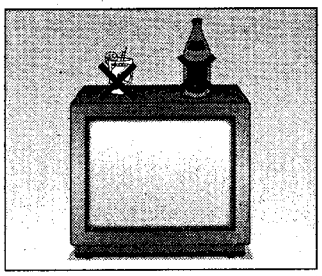


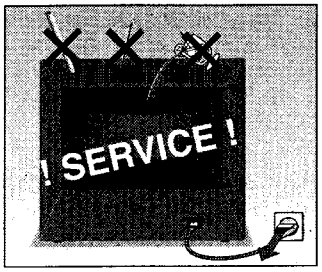


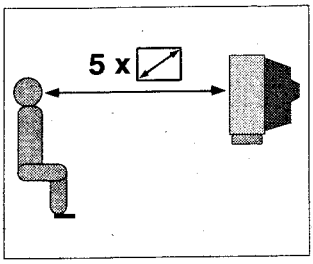












The ideal viewing distance is five times the diagonal width of the screen. See the illustration below.

The magnetic field of the earth has a varying strength. Depending on the installation direction of the set, it can affect its colour purity.

Colour purity errors are colour aberrations occurring as coloured zones on the picture screen.

For installing the TV set, the west/ east direction has proved to be the best solution.

Take care that set is not rotated during operation.

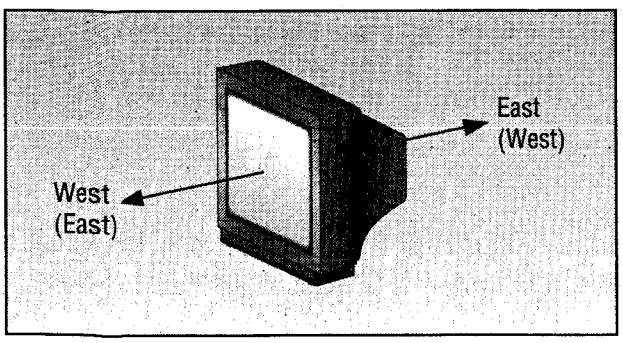
This might lead to colour aberrations.
Transport the set to another location only when it is switched off.

When setting up and using this unit, please make sure that the mains connection wire is free and not jammed in order to avoid damage.

If you do not use your television for longer periods to time (including over night), switch it off with the mains switch ①.
This saves energy.

Even if your television is switched off, it can still be damaged by a lightening strike in the power supply or aerial cables.

For this reason, you should always disconnect your television from the mains as well as the aerial cable during thunder-storms.



Cleaning the picture screen

Never expose the unit to moisture.
Do not insert foreign objects into the ventilation openings on the back.
Caution! High voltage!

The TV receiver is provided with a Megatron-picture tube with a special surface layer.

This have the advantage of an antistatic effect, i.e. the surface does not attract dust particles.
When the set is switched on, static charges of the picture screen are avoided to a large degree by the special surface layer.

Clean the picture screen of your TV set only with a moistened soft cloth.
Use clear and clean water only.
When cleaning the picture screen, do not apply pressure (abrasion, scratches).

Do not stick labels of any kind onto the picture screen.

The Remote Control

The remote control is the central control unit for your television set.

All control functions and basic settings can be carried out with the remote control..

Insert the battery provided, noting the markings inside the battery compartment.
When the battery is dead, "Telepilot battery" appears on the screen.
Always replace a weak battery in good time. We can assume no liability for damage which may result from damaged batteries.

The rmote control is provided with decals. This allows you to write down channel positions you select.

There is a depression on the rear of the remote control where the decal can be conveniently attached.

⏻ Switch to stand by

1-0 Channel selection, and switching on
AV the television from stand by,
as well as
- Selection of AV position
- Direct channel selection (after pressing the P/C button
- Entry of page numbers in teletext mode

P/C Selection of Programme/Channel/ Special channel. Keep the button depressed 4 sec.: ATS

AUX Selection buttons for various functions

i Calling up the Info Center.

P+ Individually switch channels (1, 2, 3 ...)

P- Individually switch channels (... 3, 2, 1)

or

P+ Cursor movement up,
P- Cursor movement down

OK -Changing and activating various functions in teletext

◀ ▶ Volume adjustment

or

◀ ▶ Move cursor to the right, to the left

◑ Color contrast

VIDEO Video recorder remote control (keep VIDEO button depressed)

PIP Picture-in-picture, on/off

16:9 Change picture format 4:3 ‹ 16:9

IDTV without function

Sound ON/OFF (mute)
Access to audio menu

Teletext mode ‹ TV mode

○ Teletext mode function

○ without function

Time on/off

○ Current channel/Subtitle

☼ Brightness

SAT Satellite receiver remote control (keep SAT button depressed)

Assigning Channel Positions

Assigning channel positions for television channels

General

Television stations broadcast their programmes on their own channels.

These channels must be assigned to channel positions in the television.

It is only necessary to make these settings once, when you set up your television for the first time, or if reception conditions change (for example, if you move to another location, or if you are subsequently connected to a cable television source).

In addition to the 99 channel positions, you also have the programme positions AV1, AV2, AV3, AV4 und AV5.

Your television can receive channels from television stations (as well as from satellites, cable television networks and video recorders) which broadcast in the colour norms PAL, SECAM and NTSC.

NICAM is a new method of transmitting sound from the station to the receiver (your television).

In this method, the sound signals are transmitted in digital form (as opposed to conventional analog signals) and are then "processed" by the television set.

Your television is capable of receiving, processing and "displaying" all of these forms of signals.

Television channels can be assigned to channel positions with the automatic channel search function (ATS euro plus = Auto Tuning System).

Switching on

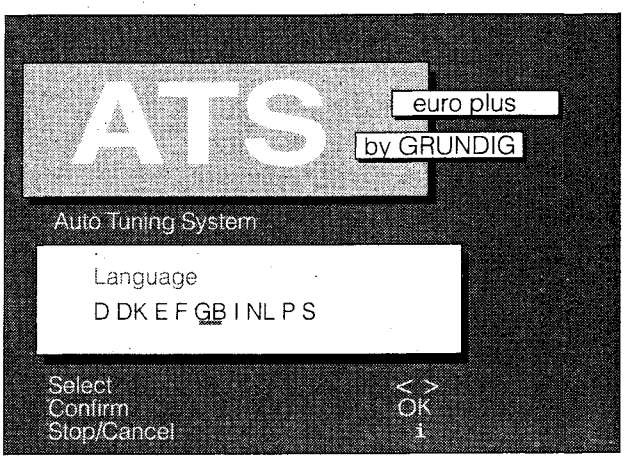
Switch the television on with the power switch ①.

The first page of "ATS euro plus" appears.

If the first page does not appear, you can call it up by pressing the **P/C** button (for approx. 4 seconds).

At the bottom of this display – as with all other displays – is a dialogue line consisting of words and symbols. The symbols are identical to the ones on the remote control.

Only those symbols (buttons) shown on the screen at the moment can be used to call up functions. This system is called the user guide, and is referred to in the sections which follow.



This television makes interacting with and responding to the on-screen dialogue easy by offering you a wide selection of languages to choose from. After you select a language, all messages and information which subsequently appear on the screen will be in this language. If you want to select another language, proceed as follows:

Using the ◀ or ▶ button, move to the desired country identification letter.

Press the **OK** button

Another country can be selected with the ◀ or ▶ button.

Press the **OK** button to start ATS euro plus.

The search procedure automatically finds and sorts available channels.

When the search procedure begins, the TV Station Table appears.

Assigning Channel Positions

If your location (country) is A (Austria), D (Germany), or I (Italy), proceed as follows:

Select the country using the ◀ or ▶ buttons.

Press the **OK** button. This starts ATS euro plus.
The search process automatically sorts those channels which are available.

At the conclusion of the search process, the TV Station Table is displayed.

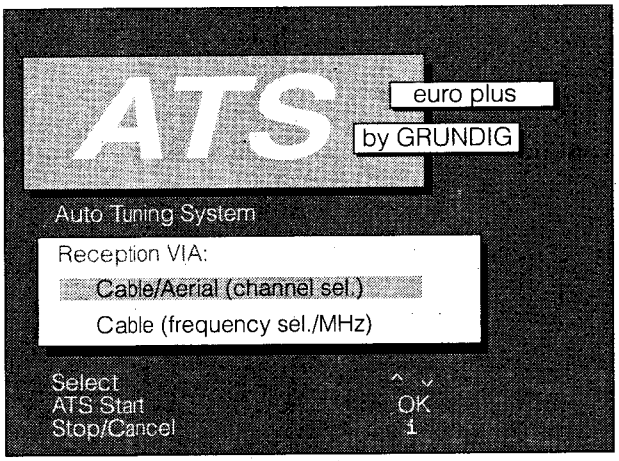
If your location (country) is B (Belgium), CH (Switzerland), NL (the Netherlands) or another country displayed, proceed as follows:

Select the country using the ◀ or ▶ buttons.

Confirm with the **OK** button.

The search process automatically sorts those channels which are available.

The next page appears.



If you have access to a normal cable or aerial system, no changes are required.

If your television is connected to a cable system which does not transmit at normal channel separation (channel frequency arrangement), you must select "Cable (frequency selection in MHz)".

In case of doubt, consult your dealer.

Press **P-** if you want to select "Cable (frequency selection in MHz)".

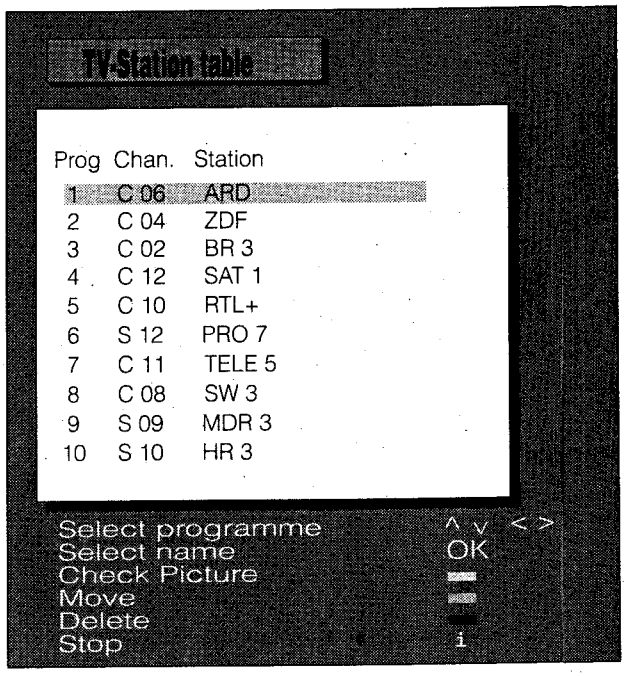
When you press **OK**, ATS starts and stops at the first channel with sufficient reception quality.
The page for fine-tuning the picture appears (only if you have selected "Cable (frequency selection in MHz)").

If required, you can adjust the quality of the picture by using the ◀ or ▶ buttons.

Press the **OK** button to add the channel to the TV Station Table.

If you do not want to add the channel to the TV Station Table, press the **red** button.

At the conclusion of the search, the sorted TV Station Table appears.



Changing the order of the automatically sorted channels

Press **P-** or **P+** to select the channel position data you wish to move.

Press the **yellow** button.

Press button **P-** or **P+** and move the channel position data you wish to move.

To conclude, press the **OK** button..

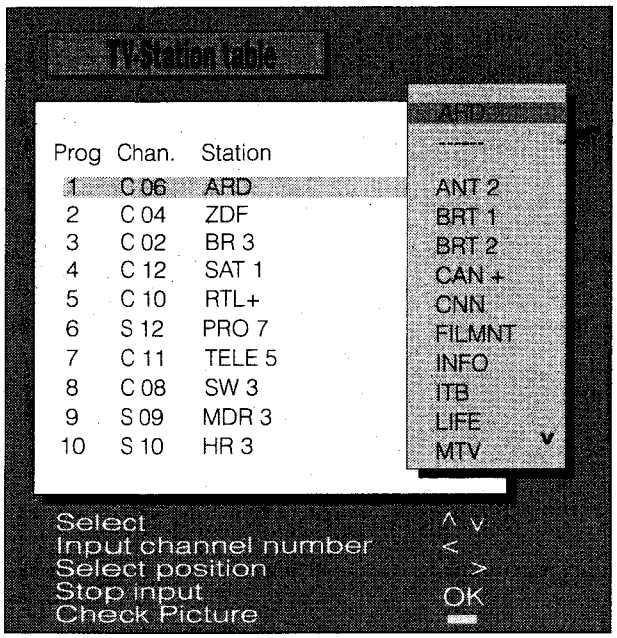
Assigning Channel Positions

Entering Station Identification

Select the channel position whose station identification you want to reenter or change.

Press the **OK** button.

A list of station abbreviations appears.



Use button **P+** or **P-** to select the desired station name (abbreviation).

To enter the selected name, press the **OK** button.

If you cannot find the desired name, or it is unavailable, proceed as follows:

Press ▶ once to select the first letter of the station identification.

Press the **P-** or **P+** button until the desired letter appears.

Enter the letter by pressing the **OK** button.

Concluding ATS

press **i** .

Press the **OK** button, and the channel assignment is stored.

If you do not want to enter the channel assignment, press the **AUX** button.

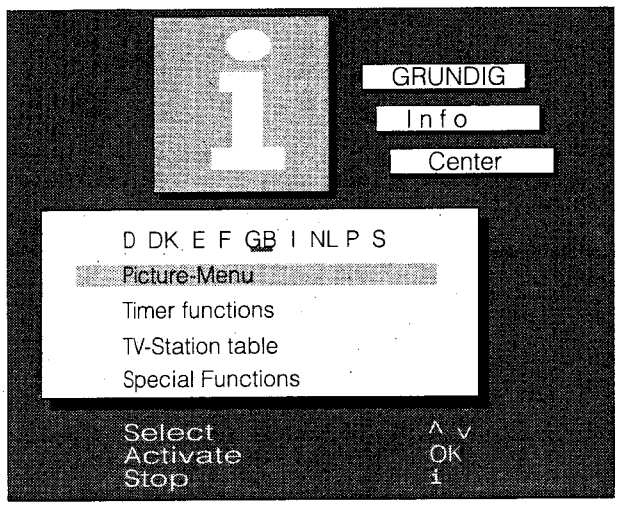
The TV Station Table disappears from the screen.

GRUNDIG Info Center

Using the "GRUNDIG Info Center", a variety of functions and settings can be carried out.

Calling up the GRUNDIG Info Center

Press **i**. The Info Center appears.



Always note the user prompts in the lower part of the screen together with the dialogue lines.

1. Selecting a language

The symbols and text in the Info Center are available in several languages.
D (German) is set at the factory.

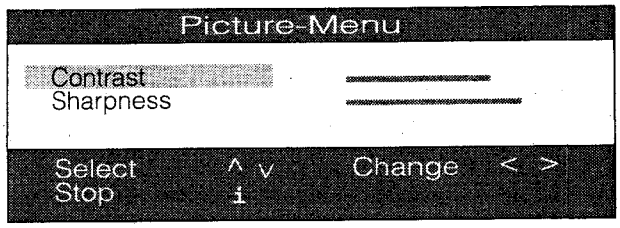
2. The Picture Menu

In the picture menu, you can adjust picture contrast and definition.

Call up the "GRUNDIG Info Center" with **i**.

Press **P-** or **P+** and select the picture menu.

Press the **OK** button.
The picture menu appears.



Make your selection with **P-** or **P+**;
the values highlighted in red can be changed by using the ◀ or ▶ buttons.

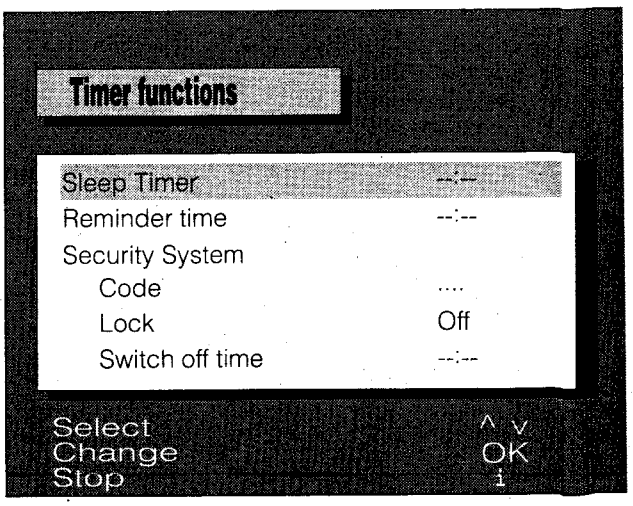
The changes made are automatically stored after exiting the picture menu with **i**.

3. The Timer functions

Call up the "GRUNDIG Info Center" with **i**.

Press the **P-** or **P+** button and select the line "Timer Functions".

Press the **OK** button.
The "Timer Functions" appear.



1. Sleep Timer

The television set can automatically switch itself off according to a time you preset.

Proceed as follows:

Sleep Timer: enter the switch-off time, refer to operating guide.

When the sleep timer is activated, the current time plus 10 minutes is given.

Using **P-** and **P+** , times are entered in 10 minute intervals.

It is also possible to enter the time with the numeric buttons **1 ... 0** .

Refer further to the operating guide.

Switch to TV mode with the **i** button.
At the programmed time, the television automatically switches itself off (to stand by).

2. "Reminder time"

Using this function, a reminder time will appear on the screen at the time you set.

Select the function with **P-** and enter the reminder time (see also Sleep Timer and corresponding user guide).

Press the **i** button and switch to TV mode.
The reminder time will appear at the set time, and blinks, for example "13:10".
Press the **i** button.
This will cause the reminder time to disappear, but it nevertheless remains stored in the television´s memory and will appear daily at the same time until it is changed or deleted.

Deleting the reminder time from memory:

Refer to the user guide in the menu "Timer Functions"

Security System

(Electronic combination lock)

The television can be set to switch off at a predetermined time, thus preventing unauthorized persons (such as children late at night) from switching the set on.

Setting the programme lock

Select the function Security System with **P-**and confirm with the **OK** button. Refer also to "Sleep Timer" and the user guide on the screen.

Enter a five-place personal identification code with the numeric buttons **1 ... 0** .

Memorize your personal identification code!

If you should forget your personal identification code, refer to the key on the last page (envelope).

Set the switch-off time as described under "Sleep Timer".

Proceed further according to the user guide on the screen. Note the dialogue lines.

Press the **i** button to switch to TV mode.

Clearing the programme lock

If the television is switched on with the ProgramLock on, "Programme Lock" will appear and blinks on the screen.

Enter your personal idenfication code using the numeric buttons **1 ... 0**. The television automatically switches on to TV mode.

The teletext decoder is equipped with a clock which is automatically started and set to the correct time as soon as the TV is switched on and a channel is selected which provides teletext service. Afterwards, the correct time is available even on channels without teletext. If you call up the timer function without first having tuned to a channel with teletext, the "Sleep Timer" and "Security System" can only be used by entering minutes.

4. The TV Station Table

ATS euro plus registers all programmes which can be received. If other channels are added to the frequency range at a later date, these can be easily assigned to the TV Station Table. You can check their assignment at any time by calling up the TV Station Table.

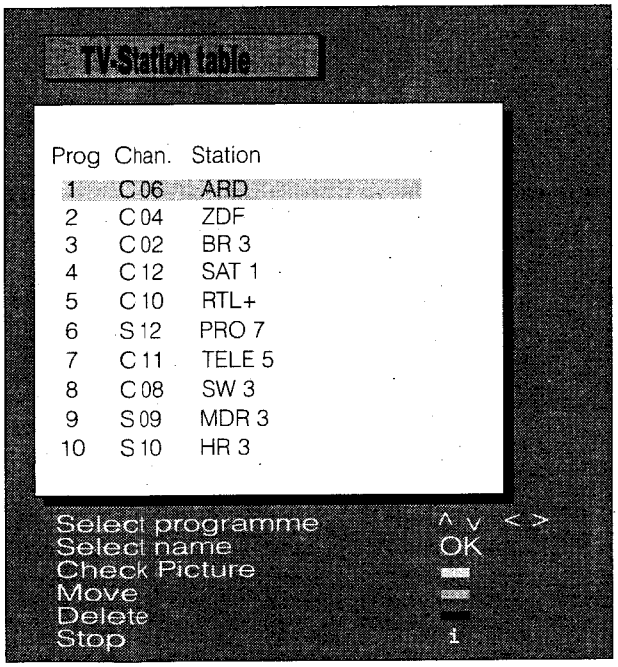
Adding new TV channels

Call up the "GRUNDIG Info Center" :

Press **i** : "Menu → OK" appears.

Select the line "TV Station Table" with **P-**.

Press the **OK** button.
The "TV Station Table" appears.



With buttons **P-** or **P+** , select a channel location where another channel is to be stored.

Press the **OK** button.

Press ◀.

If you receive channels via cable which must be received on special channels, press **P+** or **P-** (S = Special channel, C = Channel).

Press ▶.

Enter the channel number with the numeric buttons **0** ... **9**.

To enter the station identification, refer to the dialogue lines or to the chapter "Assigning Channel Positions".

Press the **OK** button to conclude the entry.
You can assign up to 99 channel positions.

The TV Station Table disappears when **i** is pressed.

Fine-tuning

Your television automatically adjusts the picture to provide the best picture quality possible. In difficult reception conditions, however, it may be necessary to fine-tune the picture as follows:

Call up the TV Station Table: Press the button **i**.

Select the line "TV Station Table" with **P-**.

Press the **OK** button.
Select the channel position you want to fine-tune.

Press the **blue** button.

Press ◀ or ▶ .
Adjust the best picture possible.

Press the **blue** button once more.
The TV Station Table appears.

Selecting television standards

Television stations in different countries use different television standards (broadcasting system norms), along with their correspondingly different sound transmission channels, to broadcast their programmes.

If you want to assign channels broadcast in a different norm to a channel location, you must first select the corresponding norm.

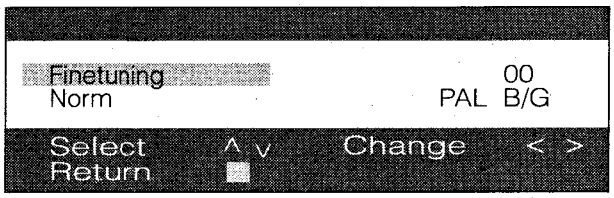
The following norms can be selected:
PAL B/G, SECAM L, PAL I – NICAM, SECAM D/K, NTSC M, NICAM (E, B, DK), NICAM (S,N,SF)

Procede as follows:

Call up the TV Station Table.

Select the channel location to which you wish to assign a channel.

Press the **blue** button.



Press **P-**. The highlighted bar moves to Standard.
Press ◀ or ▶ until the abbreviation for the desired norm appears.
Press the **blue** button. The TV Station Table appears.

5. Special functions

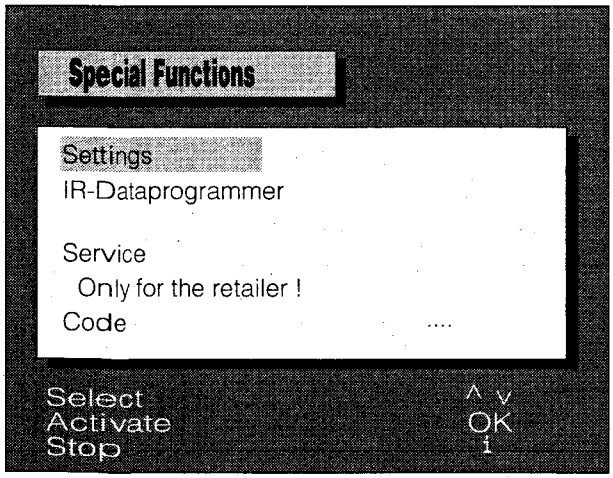
The menu Special functions is divided into three menu items. In the menu Settings, you can carry out basic settings. The functions IR-Data programmer and Service are only for your dealer and are thus protected by an identification number.

Calling up Special Functions

Call up the GRUNDIG Info Center.

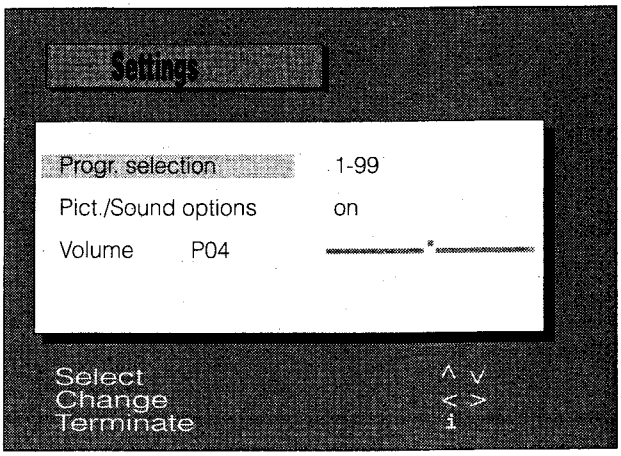
Continue to press **P-** or **P+** until "Special Functions" is highlighted in red.

Press the **OK** button.
An overview of "Special Functions" appears.



Calling up the "Settings" menu

Press the **OK** button.
The selection is highlighted in red.



One- or two-place channel selection

Call up the menu "Settings".
If you have assigned less than 10 channel positions you should limit the programme selection to between 1-9.

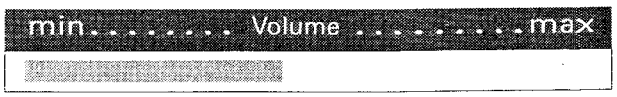
Change function with ◀ or ▶.

Press **i** to return to the channel you are currently watching.

Picture/Sound scale

Call up the "Settings" menu.
Select the "Picture/Sound scale" with **P-**.
The line appears highlighted in red.

Using 4 or 3, select which scale you wish to see, such as:



Press **i** to switch back to TV mode.

Changing the volume of a channel position

If you receive a programme whose volume deviates from other channels (too loud or low), this volume can be adjusted as follows:

Call up the "Settings" menu.
Select "Volume" with **P-**.
The line appears highlighted in red.

Use ◀ or ▶ to change the volume. Only the volume of the programme currently being viewed is changed.

Press **i** to switch back the channel being viewed.

Picture and Sound Adjustment

Switching off the sound

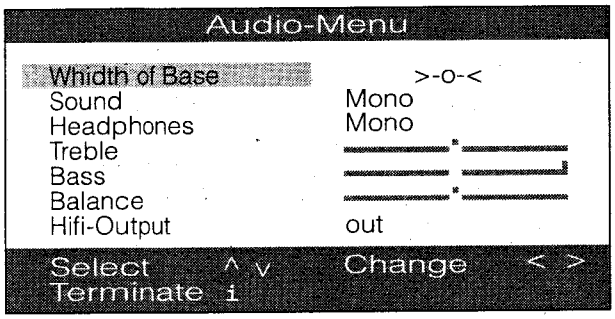
You can switch off the sound of your television by pressing the 🔇 button.
"Sound mute" and "Audio → OK" appear on the screen when you switch the sound off.

You can switch the sound on again by either pressing the 🔇 button, switching to another channel, or pressing ▶ .

The audio menu

Calling up the audio menu:

Press 🔇 ; Audio → OK appears.
Press the **OK** button.



Press the **i** button to clear the menu.

Base width

This improves the acoustic pattern during stereo transmissions and improves the sound of mono transmissions.

Select with the **P-** or **P+** buttons.

Adjust with the ◀ or ▶ buttons.

Sound

If your television is able to receive two-channel sound transmission, for example when a film is broadcast in the original sound track transmitted on sound channel 2 (NICAM B) and the synchronized version on sound channel 1 (NICAM A), you can select the version you want to hear with

the **P-** or **P+** buttons,

and adjust with the ◀ oder ▶ buttons.

Your television automatically switches to stereo if the programme is transmitted in stereo.
STEREO appears on the screen.
If stereo reception is of insufficient quality, you can switch to mono with the ◀ or ▶ buttons.
If you wish to receiver the broadcast on this programme position continuously in Mono then enter "Mono" as station identification (s. chapter "Entering Station Identification")

Headphones

Two-channel sound is also available when you use headphones if two-channel broadcast is offered by the television station).

Select with the **P-** or **P+** buttons.

Adjust with the ◀ or ▶ buttons.

Treble, bass and balance

The sound can be adjusted according to your individual taste.

Select with the **P-** or **P+** buttons.

Adjust with the ◀ or ▶ buttons.

HiFi output

You can choose between "linear", "variable" und "off"

linear = constant level for HiFi systems.
Settings are only possible here.
variable = settings for volumevia the remote control.
Here, the speakes in the television are switched off.
off = normal

Select with the **P-** or **P+** buttons.

Adjust with the ◀ or ▶ buttons.

Assigning Channel Positions; manually

Assigning Channel Positions Manually

Select an available channel position you want to assign a channel to.
Press the P/C button;

a channel number or frequency in MHz appears.

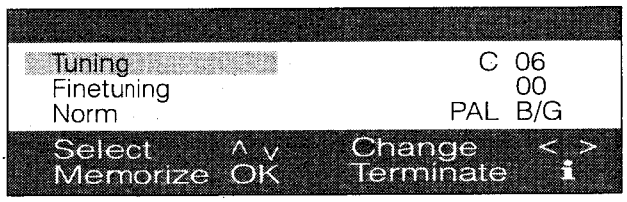
If a channel number (display C..) or special channel number (display S..) appears, you can press the P/C button to select between S,C, and a new channel position.

If you selected C.., you can use the numbered buttons to enter the desired channel number directly; e.g. 34.

If a frequency appears in the display, you can only assign channels using the search function (the search function can also be used when a channel number is displayed); to do so

press the P+ button.

The tuning-menu appears in the display.



Press the ◀ or ▶ button to start the search function.

The search function will stop at each channel which you are able to receive.

If it is a channel you do not want, start the search function again (using the ◀ or ▶ button) until you find a channel which you want to store.
Press the OK button

The channel number is now stored.

If channel 00 is assigned to and stored on a channel position ,e.g. P12, only the channel positions P01 to P11 and AV1 to AV5 are available; they can be selected by pressing the P- or P+ button

This setting has no effect on entries with the numbered buttons 0...9.

Fine tuning

The television set is automatically adjusted to the best possible picture quality. In difficult reception conditions it may be necessary to adjust the picture by manual fine tuning.

Press the P/C button, followed by the P+ button.

The tuning menu appears.

You can select the >Finetuning< option using the P- or P+ button.

Use the ◀ or ▶ button to adjust the fine tuning.

Press the OK button.

The set value is now stored.

Selecting television standards

Television stations in different countries use different television standards (broadcasting system norms), along with their correspondingly different sound transmission channels, to broadcast their programmes.

If you want to assign channels broadcast in a different norm to a channel location, you must first select the corresponding norm.

This is not necessary when using the ATS euro plus system, as the required norms have already been set.

The following norms can be selected:

PAL B/G
SECAM L
PAL I-NICAM
SECAM D/K
NTSC M
NICAM (E, B, DK)
NICAM (S, N, SF)

Press the P/C button, followed by the P+ button.

The tuning menu appears.

You can select the >Standard< option using the P- or P+ button.

Press the ◀ or ▶ button until the abbreviation corresponding to the desired television standard appears.

Press the OK button.

The television standard is now stored.

Teletext Mode

Teletext is a service provided free of charge by television stations and is transmitted together with the television signal in the form of texts, graphic representations and subtitles which are visible on your screen.
Your television offers you information pages and dialogue lines. The information in the dialogue lines indicates the various functions available as well as the buttons provided for these functions.

Page selection 100-899

Call up "GRUNDIG Top Text"
You can go to "GRUNDIG Top Text". from any operating mode.
For Fastext, this button takes you to the overview page broadcast by the station your are currently tuned to.

Teletext mode < TV mode

Blue button switches to the next block

Yellow button switches to the next group with overrun to the next block.

Green button switches to the next page with overrun to the next group.

Red button Scroll back

Fastext (Flof)

The coloured buttons are for the topics listed in the dialogue lines.

Quick TOP teletext

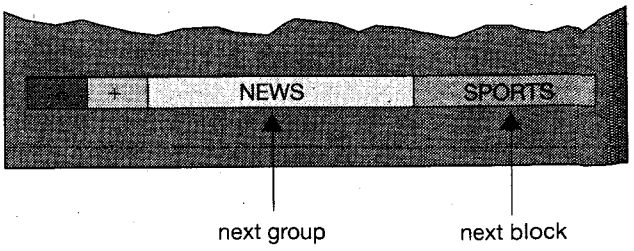
TOP, which stands for "Table Of Pages", is a recent innovation which simplifies and accelerates the selection of teletext pages.

TOP allows you to select teletext pages without knowing their page numbers. TOP does this by arranging all the pages according to topics - also called blocks - similar to a filing cabinet.

For example, all news items are listed under "News". Further topics include the blocks "Sports", "TV Programme3

s" and "Services". These blocks in turn are divided into several groups; "News", for example, is divided into politics, economics and culture. The normal teletext pages are found within these groups.

The user guide on the screen makes using TOP extremely easy. A comment line in different colors is shown at the bottom of the screen. The colors are identical to the ones on the remote control. The yellow field indicates the following group. The blue block indicates the next block.



Teletext Mode

You switch from block to block with the blue button, from group to group with the yellow button, and you scroll forward with the green button. The red button returns you.

TOP takes you quickly and reliably to the teletext page you want. A 32-page memory with optimized memory utilization provides considerably shorter access times.

For teletext without TOP the decoder compiles its own table of page numbers by means of the received teletext pages and thus simulates TOP mode.

Note

If the aerial signal is only marginal, teletext pages may exhibit disturbances. If fine-tuning the television brings no improvement, have your aerial system checked.

The teletext mode "TOP" requires certain additional information from each television station. For this reason, always wait a few seconds for the GRUNDIG Quick TOP decoder to read the required information into its memory after switching the television on or changing to a different channel.

This is indicated on the screen by "Top-Organisation ...".

With the ▤ button, you can return immediately to normal television viewing from any mode.

Always note the user guides and the dialogue lines at the bottom of the screen.

Using the **P-**, **P+**, ◀, ▶ buttons on your remote control, you can select functions of the user guide and activate them by pressing the **OK** button.

Switching on teletext

Press the ▤ button on the remote control.

Page 100 (the teletext page of contents) or the most previously viewed teletext page appears.

TOP mode

A red, green, yellow and blue field is shown at the bottom of the screen. Buttons of the same colors are found on the remote control.

With the **red** button of the remote control, you scroll backwards one page.

With the **green** button of the remote control, you scroll to the next available page (with overrun to the next group).

With the **yellow** button of the remote control, you switch to the next group. After the last group of the selected block, your are automatically taken to the next block (overrun).

With the **blue** key of the remote control, you switch from block to block.

Teletext without TOP

If you do not have TOP, the blue button takes you to the next available 100´s page, with the yellow to the next available 10´s page and with the green to the next available normal page.

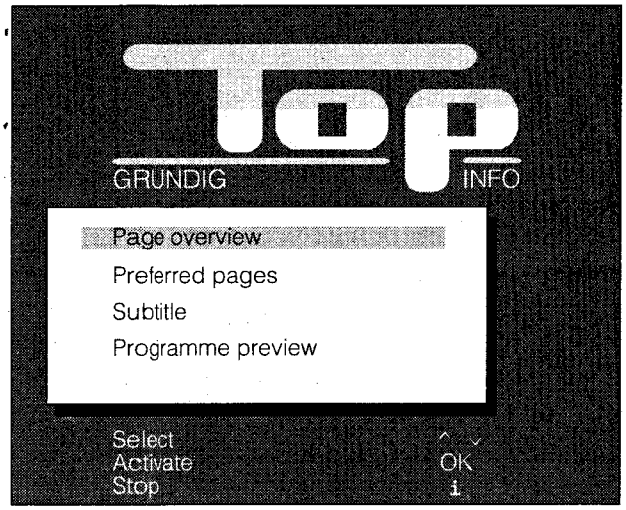
Teletext Mode

"GRUNDIG Top Text" menu page

Call up teletext with the ▤ button.

Press **i** on the remote control.

The GRUNDIG Top Text menu page appears.



Please note the user guide at the bottom of the screen: this guides you to the item you desire.

Page overview

This provides you with an overview of the block and group pages currently offered by the teletext service. For teletext without TOP, the numbers of the transmitted pages are displayed.

Press the **OK** button.

The page overview appears.

All of the listed blocks and groups can be selected with the **P-**, **P+**, ◀, ▶ buttons and activated by pressing the **OK** button.

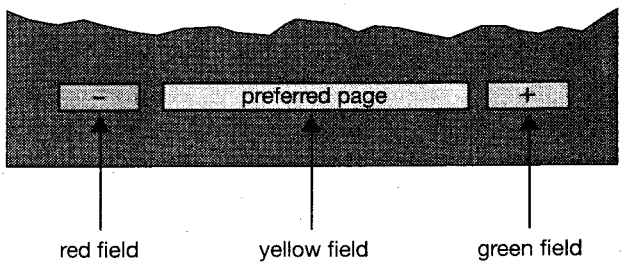
Refer to the user guide on the screen.

The following three functions are not possible for teletext without TOP.

Preferred pages

This provides you with an overview of those pages which are considered of special interest by the television station.

Select as described in Page overview.
The following appears at the bottom of the teletext page:
- Preferred page +.



The **green** button is used to scroll forward from one Preferred page to another, the **red** is used to scroll backwards, and you can return to the menu with the **yellow.**

Subtitle pages

If the programme you are currently viewing is provided with subtitles, you can call them up via "Subtitles".

Press the **OK** button.

Programme preview

This is used to switch directly to the programme preview of the station you are currently viewing.

Press the **OK** button.

Teletext Mode

Doubling character size

Press the **AUX** button.

Select ⊜↕ with buttons ◀ or ▶ .

Repeatedly pressing the **OK** doubles the character size in the following order:
upper half of the picture,
lower half of the picture,
return to normal picture.

Watching television during teletext operation

Updating pages

Certain teletext pages are constantly updated, such as stock market reports and sporting events, as well as the latest news.

If you want to watch television and nevertheless remain informed, first select a page of your choice, and then

press the **AUX** button.

Select ⊜X with the ◀ or ▶ buttons.

Press the **OK** button.

The programme is still visible for viewing, and at the top of the screen, the teletext symbol appears.
When the message "Update" appears in the infomation line,

press the **AUX** button.
The updated teletext page appears.

You can also use this function to bypass waiting times when the TOP teletext decoder searches for a page, or while subpages of multiple pages are being read in. As soon as the page is found, the message "Abrufbereit" appears in the info line.

Subpages

Several subpages can be combined under a single page number which are then automatically scrolled at an interval determined by the television station. This is indicated by the symbol " at the bottom right, or, for example, with 2/4 below the time, which indicates that you are looking at the second of four pages.

Multiple pages

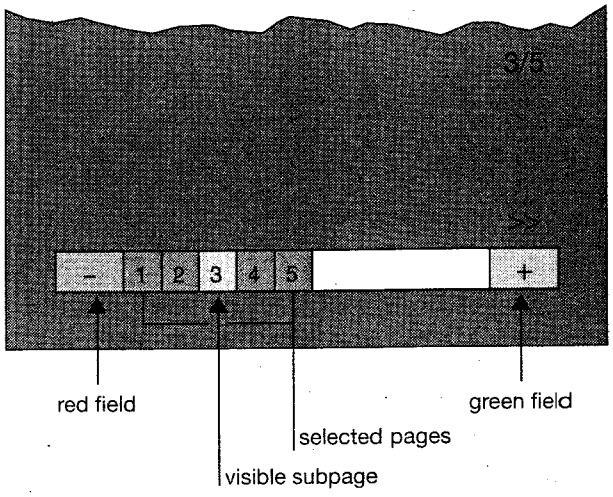
A page from multiple pages is selected.

Press the **AUX** button.

Select /OO with the ◀ or ▶ buttons.

Press the **OK** button.

The page number of the subpage (violet) currently visible is first displayed on a white bar between the red - and green + coloured fields. The remaining pages are then read in and the numbers of the subpages (blue) are displayed.



You scroll forward from one subpage to another with the **green** button, and scroll back with the **red** button. The number of the displayed subpage changes from blue to violet.

Alarm page (directly calling up subpages)

Multiple page has been selected.

Press the **AUX** and **OK** buttons once again.

The selected page number, for example S155/----, appears in the info line.

Using the numeric buttons, enter the desired four-place subpage number. For example, the second page, sequence 0002. The desired subpage is sought and displayed.

Answer

This function can be used on certain teletext pages to solve riddles given in during a televised programme, for instance, or for programming a video recorder via VPS pages.

Press the **AUX** button.

Select ⊜? with the ◀ or ▶ buttons.

Press the **OK** button,
the hidden information becomes visible.

Press the **OK** button,
the "Answer" function is cancelled.

Teletext Mode

Stop

Page read-in is terminated.

Press the **AUX** button.

Select STOP wit the ◀ or ▶ buttons.

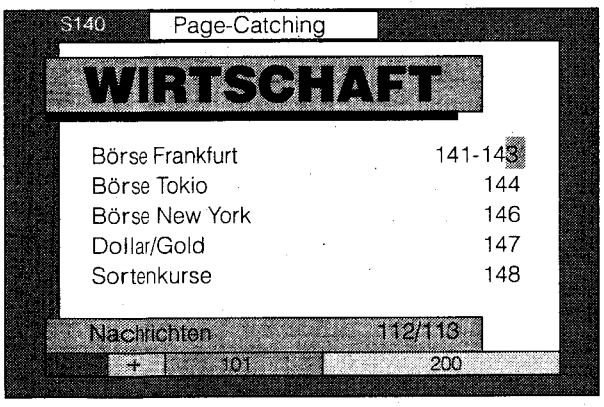
Press the **OK** button,
stop appears in the upper screen. The contents of the displayed page are now "fixed", meaning that it is no longer updated, and you remain on this page.

Press the **OK** button,

the "Stop" function is cancelled.

Page catching

This function allows you to select a page without entering the corresponding page number. Using the cursor, you can select specific teletext pages from the overview pages (pages designated with a three-place page number). You can use this function to dispense with entering the three-place number.



Press the **P-** or **P+** buttons.
"Page Catching" appears in the upper part of the screen.
A highlighted square (cursor) blinks on the first or last page number of the overview.

Using the **P-** or **P+** buttons, move the cursor to the desired page number.

Press the **OK** button.
The desired page appears on the screen.

Current programme/Subtitles

(only for stations which provide teletext service)

In the TV mode, press the red button. The current programme appears highlighted in blue and subtitles in yellow.

Press the **yellow** button.
The title of the current programme as well as its beginning and end appear.

Press the **blue** button.
The TV subtitles appear.

Press the ▤ button.
This cancels the function.

Connection Capabilities and Operation

... of stereo headphones

Connection:

Insert the headphone jack (3.5 mm ∅) into socket ④.

Operation:

Press the **AUX** button, and adjust the volume with the ◀ or ▶ buttons.
The adjusted volume is displayed on a scale.

For two-channel selection while operating the headphones, refer to the audio menu.

... of a satellite receiver

Connection:

Connect your satellite receiver to the black EURO-AV socket ⑭ or the orange AV socket ⑬ with a suitable cable.

Operation:

Contiue to press the **0AV** button until AV1 or AV2 appears.

Keeping the **SAT** button depressed, enter the desired channel position with the numeric buttons **1** ... **0**.

...of a decoder

Certain television stations which broadcast via cable scramble their programmes, meaning that the sound and picture signals your television receives are purposely distorted. You can unscramble such transmissions with a decoder.

Connect your decoder to the black EURO-AV socket ⑭ and switch it on.

On your televison, select a scrambled channel position. Press the **AUX** and **0AV** buttons, the current insert appears. By repeatedly pressing the **0AV** button, the following functions can be selected:

"Descrambler off" (switching voltage is not evaluated).
Descrambler on Auto
Automatic switching to mono, stereo, or two-channel broadcasts. This depends on the broadcast received via aerial.

Descrambler on Stereo
The left and right sound channels of additional units connected to the black EURO-AV socket are switched through to the speakers.

Descrambler on Mono-L
For mono-L, the left sound channel is switched to both speakers.

Descrambler on Mono-R
For mono-R, the right sound channel is switched to both speakers.

The scrambled programs are routed from the television to the decoder, are descrambled, and then are routed back to the television, where the unscrambled signals can be viewed as a normal television programme.

The blue and oragne EURO-AV sockets are used for recording with a video recorder. If a programme location is to be set up for which decoder operation may be unsuitable, press the **AUX** button and then the **0AV** button until Descrambler off appears.

When additional units are connected...

If you have connected additional units - for example, decoder, satellite receiver, two video recorders - you should connect the decoder to the video recorder, the satellite receiver to the black Euro-AV socket ⑭, and the video recorders to the blue ⑫ and orange ⑬ sockets.

Connection Capabilities and Operation ...

Channel positions for additional units

Any given channel position can be used for playback from any connected unit connected to the black EURO-AV socket (for example, from a video recorder with switching voltage to pin 8 of the EURO-AV socket ⑭).

For example, you receive three television channels and would like to assign a video recorder to the fourth channel position.

Select channel position 4 with the numeric buttons.

Set as described under "... of a decoder".

...of a video recorder

Connection:

With an AV cable, connect the video recorder either to the black ⑭, orange ⑬ or blue ⑫ EURO-AV socket, or to the aerial socket ⑧.

Operation:

Video recorder connected to the black EURO-AV socket ⑭:

Press the **0 AV** button repeatedly until AV 1 appears on the screen.
The picture/sound signal of the video recorder, which is connected to the black EURO-AV socket, can be switched to any channel position (refer to "Channel positions for additional units").
Start video recorder playback.

Video recorder connected to the orange EURO-AV socket ⑬:

Press the **0 AV** button repeatedly until AV 2 appears on the screen.
Start video recorder playback.

Video recorder connected to the blue EURO-AV socket ⑫:

Press the **0 AV** button repeatedly until AV 3 appears on the screen.
Start video recorder playback.

Video recorder connected to the aerial socket ⑧:

Assign the playback channel specified by your video recorder (between 30 and 40) to free channel position (for example, P16) (refer to "TV Station Table").
If you enter on this programme position the abbreviation **AV** as station identification, any deviations from the playback channel of the recorder will be compensated by the TV set.
If you do not know the playback channel of your video recorder, start playback and search for the channel by means of the channel search of your television (refer to the section "Assigning Channel Positions").
Note the channel position for subsequent video playback.
If desired, you can fine-tune the video picture (refer to the section "Fine-tuning").

Operation:

Select the TV Station Table in the Info Center (refer to user guide).

Select the desired channel position.

Enter your video recorder's playback channel.

Enter AV for the station identification (no horizontal flickering in the upper part of the picture).
Example:

Prog.	Channel	Station
16	C 37	AV...

Connection Capabilities and Operation ...

... of a camcorder

Connection:

With an AV cable, connect the camcorder to the FBAS socket ⑪. The sound channel must be separated here via both cinch sockets ⑨.

Operation:

Press the **OAV** button repeatedly until AV 4.
Start camcorder playback.
Camcorder playback is seen on the screen.

... of S-VHS video recorders, S-VHS cameras or Hi8 camcorders

You get even better picture quality when you connect a S-VHS video recorder, a S-VHS camcorder or a Hi8 camcorder to the S-Video socket ⑩. This is because both the colour and brightness signals can be processed separately, ensuring that they cannot influence each other; cross-colour luminance, for example, is eliminated. The sound must also be seperated via both cinch sockets ⑨. For mono units, connect the sound cable to the L socket ⑨.

Operation:

Connection to the S-Video socket ⑩:

Press the **OAV** button repeatedly until AV 5 appears on the screen.

Start playback on the camera or the video recorder.
The recording can be seen on the screen.

Copying recordings via the television (Transfer mode)

Transfer from	→	to:
AV1 ⑭	→	AV2 ⑬
(black)	→	AV3 ⑫
AV2 ⑬ (orange)	→	AV3 ⑫
AV3 ⑫ (blue)	→	AV2 ⑬
AV4 ⑪	→	AV2 ⑬
FBAS	→	AV3 ⑫
AV5 ⑩	→	AV2 ⑬
S-VHS	→	AV3 ⑫

You can record from one video recorder to another, or from a camcorder to a video recorder, or from a S-VHS video recorder to another video recorder.

Proceed as follows:

Connection:

Connect the playback recorder or the camcorder to the black EURO-AV socket ⑭. Connect the camcorder to the cinch FBAS socket ⑪, connect R IN L ⑨. Connect the S-VHS camera or the Hi8 camcorder to the S-VIDEO socket ⑩, R IN L ⑨ ...

Connect the **recording** recorder to the blue EURO-AV socket ⑫ and /or orange ⑬.

Connect AV socket.

Operation:

Select the input socket with the **OAV** button.

AV1 : bottom EURO-AV socket (black) ⑭ display AV 1
AV4 : FBAS socket ⑪ display AV 4
AV5 : S-VIDEO socket ⑩ display AV 5

For both AV4 and AV5, the sound must be separately connected via both cinch sockets ⑨.

Press the **AUX** button and then the **OAV** button.

"Copy on" appears on the screen. You are now free to watch any channel on your television without disturbing the recording.

To cancel the "Copy on" function: press the button **OAV** , select the AV position from which playback (transfer) was given.

Press the **AUX** button and then the **OAV** button.

Connection Capabilities and Operation ...

Copying recordings from a S-VHS recorder (S-VHS camera) to a video recorder

Connection:

S-VHS recorder to S-Video socket ⑩, sound separately to ⑨.
Connect the recording recorder to ⑫ or ⑬.
It is possible to record onto two recorders.

Operation:

Press the **0 AV** button until AV 5 appears.
The recorders start.

The video film to be recorded appears on the screen.

If you wqant to watch television while recording, you must press the **AUX** and **0AV** "Copy on" buttons (see previous example).

Recording in Stand by

The television can be switched to stand by in all recording modes, thus allowing you to save energy.
Press the **AUX** and ⏻ buttons.
"COPY" is seen in the display.

Adjusting the picture and sound during video playback

During video playback, if there are deviations in the picture and sound (via one of the **AV** sockets) as compared to the picture and sound you are normally accustomed to (for example, the sound is too loud, or the colours are too bright), you can change these settings and store them with the remote control (doing so does not change the basic seting of the television picture).

Video recorder remote control

This television´s remote control can also be used to remotely control Grundig video recorders. Consult your dealer for models which offer this function.

Press the **VIDEO** button and keep depressed.
This switches the remote control to video recorder mode.
Then press the desired function key.

The following is a list of the buttons used to operate a video recorder:

◀◀ (Numeric button 1) = Picture search, reverse
▶▶ (Numeric button 2) = Picture search, forward
● (Button - ◑) = Record start
■ (Button ◑ +) = Stop
◀◀ (Numeric button 7) = Quick reverse
▶▶ (Numeric button 8) = Quick forward
II (Button - ☼) = Pause
▶ (Button ☼ +) = Play
▼ (Numeric button 4) = Channel position -
▲ (Numeric button 5) = Channel position +

Technical Data

Mains voltage:

220-240V, 50/60Hz
(Power supply control range 190 ... 264V)

Power consumption:

approx. 130W
In stand by: 5W

Channel coverage:

C01 ... C99
Special channels S01 ... S41

Sound output:

100 W active musical output (50W sinus = 2 x 12.5 + 2)

Service note for the dealer:

This device is provided with a pluggable power supply cable. For replacements, contact the nearest customer service center and always indicate the following order number: 8290-991-307

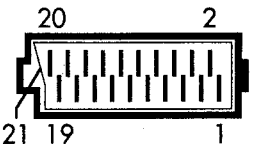
This device conforms to VDE safety regulations and directives of the Deutsche Bundespost (German Federal Post Office; see certification mark on the type sticker on the rear of the device.), as well as all relevant ordinances governing X-ray emissions. The picture tube, which emits X-rays, is sufficiently shielded and therefore represents no danger. Accelerating voltage is a max. 34kV with a mean beam current of 1,6 mA. This device is provided with an intrinsically safe cathode ray tube in accordance with Appendix III of the applicable X-ray ordinances.

Unauthorized tampering with the device, in particular making adjustments to the high voltage system, or installing a different picture tube, can considerably increase X-ray emissions. Devices so altered no longer conform to applicable safety regulations and may not be operated.

EURO-AV pin assignment ⑭

If you want to connect other devices to your television (for example, a computer or amplifier), your dealer can provide you with a normed standard connection by means of the following table:

Pin		Signal
1	=	Audio output, right
2	=	Audio input, right
3	=	Audio output, left
4	=	Audio earth
5	=	Blue, earth
6	=	Audio input, left
7	=	RGB blue, input
8	=	Switching voltage
9	=	Green, earth
10	=	–
11	=	RGB green, input
12	=	–
13	=	Red, earth
14	=	Earth
15	=	RGB red, earth
16	=	RGB switching voltage
17	=	Video earth
18	=	RGB switching voltage, earth
19	=	Video output
20	=	Video input
21	=	Shielding/earth



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